

REMARKS

Claims 5-7 and 9 are pending in this application. Reconsideration of the rejections in view of these amendments and the following remarks is respectfully requested.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "Version with Markings to Show Changes Made."

(1) Claims 5-7 and 9 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 is amended, and is believed to overcome the rejection. Reconsideration in view of the amendment and the following remarks is respectfully requested.

The examiner alleges that in claim 5, the phrase, "wherein the pH value of a 1 wt% methanol solution is within the range of 4.5 to 6.8" is unclear and indefinite, and it is unclear how the pH value ties into the ultraviolet-curable composition because it is not directed to any of the film.

Please note that the phrase pointed out by examiner is based on the original claim at filing. After the amendment filed on December 2, 2002, claim 5 recites the phrase of "wherein the pH value of a 1 wt% methanol solution of the ultraviolet-curable composition is within the range of 4.5 to 6.8."

According to the present invention, the applicant found that it is important to control an acidity or basicity of monomers, oligomers and photopolymerization initiator of an ultraviolet curable composition. If the pH value, based on measurement in a 1wt% methanol solution, is within the range as defined in the present invention, the resultant optical recording medium having an Ag refractive layer has an improved durability, as shown Examples 1-4 and Comparative examples 1-2 in Table 1 (page 20).

The phrase, 'wherein the pH value of a 1 wt% methanol solution of the ultraviolet-curable solution is within the range of 4.5 to 6.8' in claim 5 includes the terms of "of the ultraviolet-curable solution," so claim 5 is believed to tie into the subject matter, the ultraviolet-curable composition.

(2) Claims 5-7 and 9 were rejected under 35 U.S.C 103(a) as being unpatentable over Suzuki et al. (U.S. 5,573,831).

The examiner alleges that it would have been obvious to one of ordinary skill in the art to optimize the components of the polymeric group(s) because Suzuki teaches adjusting the monomer by varying the solvents they are dissolved in (column 6, lines 45-51).

However, the teaching in Suzuki et al. in column 6, lines 45-51, is that to improve solubility of the hydrophilic polymer, a solvent such as methanol may be used. As described in column 5, lines 41-51, ultraviolet-curable compositions are typically used without a solvent, but may contain a

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solvent to increase solubility of a monomer into a polymer. Therefore, the portion at column 6, lines 45-51, where the examiner alleges, is not a teaching of "adjusting the monomer by varying the solvents they are dissolved in."

The present invention does not direct to add methanol into the ultraviolet-curable composition, but to adjust a pH value of a 1 wt% methanol into the claimed range. According to the present invention, the ultraviolet-curable composition is adjusted to have a pH value in a 1 wt% methanol, resulting in having a refractive layer of Ag or an Ag alloy with an improved durability. Suzuki et al. does not teach to control a pH value in a 1 wt% methanol solution to improve durability.

In addition, Suzuki et al. disclose Au, Al, Pt, Ag, Ni, etc., as a refractive layer. The applicant of the present invention found to have a good durability, when the refractive layer of Ag or an Ag alloy is used as a refractive layer, and when the ultraviolet-curable composition has a defined range of a pH value in a 1 wt% methanol solution.

The examiner also alleges that the submitted declaration is insufficient since there were more examples present than the composition of example 2.

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However, the remaining examples 1 and 3-5 in Suzuki et al. use "SD-17 (a product of Dai Nippon Ink Chemicals, Co, Ltd)." SD-17 was shown in the declaration in connection with EP 1058250. The declaration shows that "SD-17" has a pH value of 3.8, which is outside of the claimed range of the present invention.

In addition, the examiner alleges that it is preferred that the test examples be performed in triplicate for an accurate account of the results, but there is no requirement in the rules.

Therefore, the applicant believes that the submitted declaration is sufficient to show that Suzuki et al. does not disclose any products falling within the claimed range of the present invention.

It is submitted that nothing in the cited references, taken either alone or in combination, teaches or suggests all the features recited in each claim of the present invention. Thus, all pending claims are in condition for allowance. Reconsideration of the rejections, withdrawal of the rejections and an early issue of a Notice of Allowance are earnestly solicited.


If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicant's undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

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In the event that this paper is not timely filed, Applicant respectfully petitions for an appropriate extension of time. The fees for such an extension or any other fees which may be due with respect to this paper, may be charged to Deposit Account No. 01-2340.

Respectfully submitted,

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PATENT TRADEMARK OFFICE

Enclosures: Version with markings to show changes made

IN THE CLAIMS:

Claims 5 and 9 have been amended as follows:

5. (Amended) An ultraviolet-curable composition used for a protective film in an optical recording medium having

(a) a recording layer or data recording pits,

(b) a reflective film comprised of Ag or an alloy having Ag as its main component, and

(c) a protective film comprised of a cured film of [an] the ultraviolet-curable composition, deposited in that order, on a substrate,

wherein the pH value of a 1 wt% methanol solution of the ultraviolet-curable composition is within the range of 4.5 to 6.8.

9. (Amended) An optical recording medium, comprising [the] a protective film [of claim 8] formed by curing the ultraviolet-curable composition of claim 5.